

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.



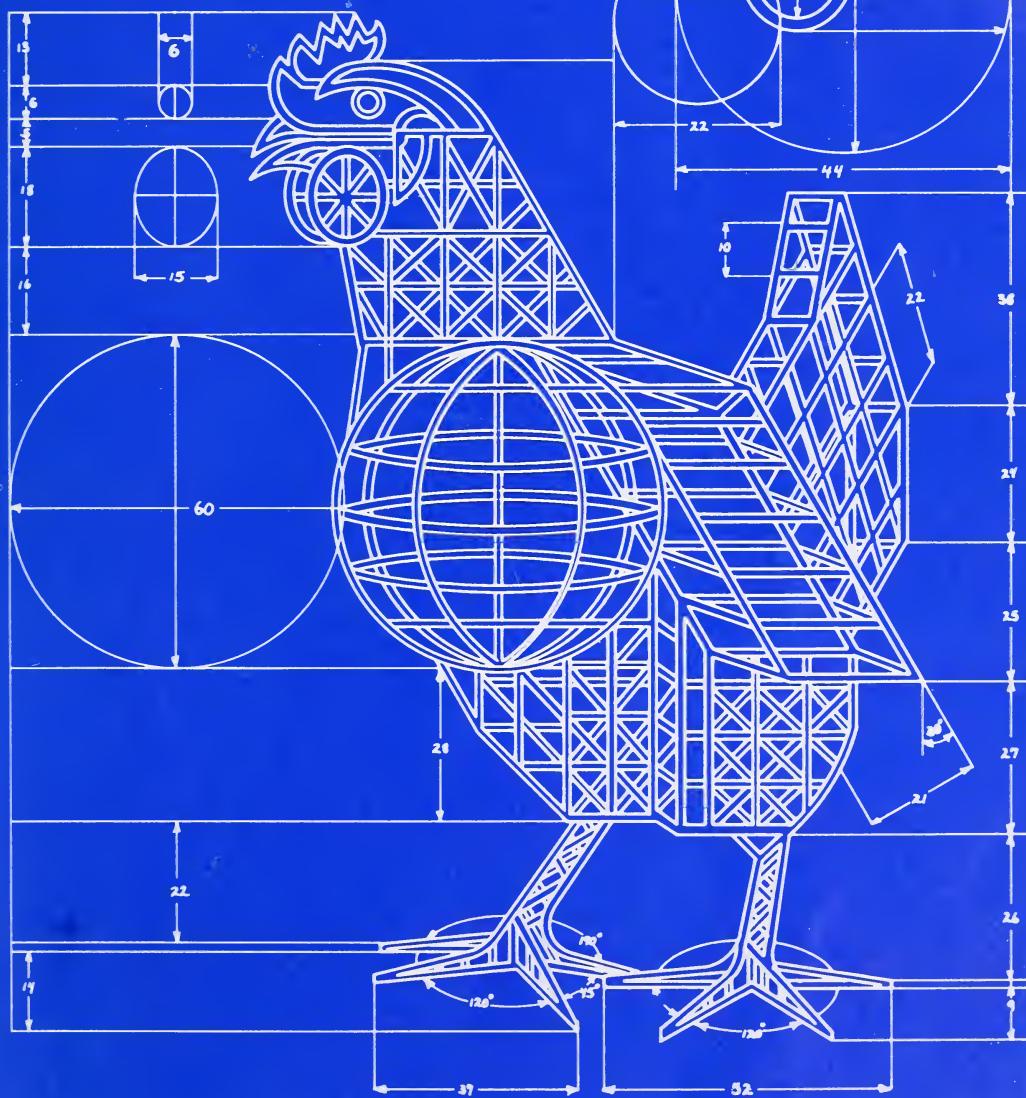
A984 Pro #1348

共 1348

5

S. Poultry Industry

Building A Better Bird



United States Department of Agriculture
Program Aid Number 1348

Prepared by Extension Service

Extension Service, United States Department of Agriculture, offers its programs to all eligible persons regardless of race, color, sex, religion, age, national origin, or handicap, and it is an equal opportunity employer.

U.S. Poultry

Industry

Building A Better Bird

A Profile of the Poultry Industry in the United States

Great strides have been made in total U.S. poultry production since the poultry industry started using research findings related to production and marketing. In 1983, an estimated 12.3 billion pounds (5.58 million metric tons—MT) of ready-to-cook broilers, 2.6 billion pounds (1.18 million MT) of ready-to-cook turkeys, 600 million pounds (0.27 million MT) of ready-to-cook farm chickens, and 5.7 billion dozen eggs were produced—resulting in more than \$9.5 billion in sales at the farm level.

The United States Department of Agriculture (USDA) and State agencies contribute approximately \$50 million per year in research dollars, twice the amount contributed 10 years ago. Several million dollars are also spent on poultry research by industry.

Production and Marketing

Modern poultry production and marketing methods have improved considerably from just a few years ago.

Today's layers average 244 eggs per year and use only 4.10 pounds of feed per dozen eggs produced. Over 90 percent of U.S. eggs are produced by caged layers, many in environmentally controlled facilities where ventilation, evaporative cooling, feeding, egg gathering, and watering systems are mechanized and automated. In many instances, poultry waste is removed from under the cages by scrapers or water flush systems to anaerobic lagoons. Much of the manure is used as plant fertilizer for crops. Many laying houses have in-line egg washing, sizing, grading, and packaging systems. Collected eggs are either refrigerated on the farm or trucked immediately to central egg processing facilities. Eggs usually reach domestic retail outlets about 3 days after they are laid.

Broilers now reach a market weight of 4.1 pounds (liveweight) in 51 days and use only 2.05 pounds of feed for each pound produced. There have been fewer changes in broiler production than in egg production practices in recent years. Buildings look about the same, and broilers are still grown mostly on litter. Some houses are mechanically ventilated, and many have circulating fans to help keep the birds comfortable in hot weather. Ceilings and sidewalls are insulated in most houses, helping to keep the birds cool in hot weather and to conserve heat in cold weather. A combination of mechanical ventilation and insulated

buildings makes it possible to use partial house brooding for the first 3 weeks, and results in tremendous savings in energy and dollars.

Turkeys are brooded much the same as broilers. However, at about 8 weeks, most turkeys are moved into more spacious confinement buildings, where they remain until market weights are reached at about 15 weeks for hens and 18–20 weeks for toms. Confinement rearing allows year-round production of turkeys. Turkeys are marketed at various weights depending upon market needs and average 3.0 pounds of feed per pound of liveweight turkey. When turkeys were reared on the range, production was more seasonal. Some producers still produce turkeys on the range during late spring and summer months.

Consumption

American consumers are eating more broiler and turkey meat but fewer eggs. Per-capita consumption of broilers has more than tripled, from 13.8 ready-to-cook pounds in 1955 to 51.5 pounds in 1983. Egg consumption dropped from 371 in 1955 to 259 in 1983. This increase in poultry meat consumption has continued due to improved product quality and availability, and very favorable retail prices. Prepacked cut-up chicken and parts have appealed to consumers and helped expand consumption. Fast food restaurants have also found chicken an attractive and cost-favorable menu item.

Per-capita consumption of turkey has risen by about 2 pounds each decade—from 5.0 pounds in 1955 to 11.2 pounds in 1983. Consumption has remained high during the fall holiday season, but a variety of further processed products and regular use by food service outlets have made turkey available and appealing in all seasons. Almost 40 percent of our turkey is now used to make further processed products such as turkey roll, turkey ham, salami, and pot pies.

U.S. Poultry and Eggs—Five Big Pluses

High Quality

U.S. poultry and eggs are the highest quality possible. Combined government and industry research has developed the best production, processing, and marketing systems possible to bring consumers uniform, high-quality poultry products. Many diseases have been eliminated or controlled through research.

Research makes it possible for year-round production and assures consumers a constant supply of poultry and eggs.

Research in nutrition, physiology, and genetics has led to meatier, younger poultry. Improved processing and marketing systems allow eggs and poultry to reach consumers in a matter of hours or days instead of the extended time it took in the 1930's and 1940's.

The USDA monitors imports to prevent the introduction of poultry diseases into the United States and to eradicate diseases when found. Hatching eggs and pet birds can be imported only under strict rules of quarantine and examination.

Control and eradication programs are conducted in cooperation with the States and with private industry.

Diagnostic services assist poultry producers in controlling poultry diseases. Programs also are conducted to prevent the production, importation, and marketing of worthless, contaminated, dangerous, or harmful vaccines, serums, toxins, or other products used to keep poultry healthy.

If foreign poultry diseases penetrate the United States, five regional emergency animal disease eradication teams can be activated quickly.

The National Poultry Improvement Plan is a Federal-State-industry cooperative effort to establish standards for the evaluation of poultry breeding stock and baby chicks with special emphasis on freedom from hatchery-disseminated diseases. Individual programs exist for the testing and subsequent classification of poultry breeding stock for freedom from **Salmonella pullorum**, **S. gallinarum** (fowl typhoid), **Mycoplasma gallisepticum**, **M. synoviae**, and **M. meleagridis**. Products conforming to specific standards are identified by authorized terms that are uniformly applicable in all domestic and exported products.

Quality standards and grades for market poultry and eggs help farmers receive a fair price and aid consumers in the selection and purchase of products. The USDA provides voluntary poultry and egg grading services for the poultry industry. These services, which are not required by law, are paid for by processors who use them extensively. About 80 percent of the poultry produced—including turkeys—and approximately 45 percent of the shell eggs going to consumers are graded under USDA's voluntary program.

Processors who contract for the grading service are entitled to use the official USDA grade marks on their products going into retail. Before grading services can be implemented, processing plants must meet strict requirements for facilities and equipment, sanitation, and operational procedures.

For a nominal fee, federally licensed graders-inspectors examine poultry, shell eggs, and egg products to help insure compliance with contract requirements.

Safety

Federal laws require all poultry, both fresh and processed, to be unadulterated, wholesome, and labeled accurately. Government inspectors insure that plants are clean, that only healthy birds are used for food, that proper processing procedures and equipment are used, and that products entering the food chain are safe to eat and properly labeled. Tissue samples are tested to determine if prohibited drug or chemical residues are present.

The USDA's food inspection staff is by far the largest governmental health inspection service in the United States. Procedures and specifications used by inspectors in poultry slaughtering and processing plants continue to change, as the USDA responds to growth and new developments in the U.S. poultry industry. New, more efficient inspection methods are being developed that maintain the same level of consumer protection, while permitting more efficient processing methods.

USDA also administers a law requiring all egg products (liquid, frozen, and dried) to be processed and pasteurized under continuous USDA inspection and to prevent certain undergrade shell eggs from entering consumer channels.

Nutrition

Poultry and egg products rank near the top of all commodities in nutritional value. Chicken and turkey are high in protein, and provide iron, thiamin, riboflavin, and niacin. Poultry meat, especially chicken and turkey, is low in fat, with turkey meat the lowest of all domesticated poultry products.

Eggs are high in protein, and have moderate levels of iron, vitamin A, riboflavin, and vitamin D. Eggs are also a source of all known nutrients essential to the human diet except vitamin C.

Low Cost

The cost of poultry and eggs has risen far less than most foods in the past 40 years. They are the least expensive of all animal protein foods and compare favorably with plant protein foods on the basis of essential amino acids at a reasonable cost. This is made possible through research efforts that continue to lead to improved efficiencies in poultry production and include improved environment, new approaches to better breeding, new information on vaccines and health programs that eliminate and control poultry diseases, the nutritional requirements of poultry, and more sophisticated management systems that improve productivity and reduce production costs.

New technologies and efficient processing techniques allow a greater variety of poultry products to reach consumers quickly. Water and energy saving innovations have become a part of most poultry and egg processing plants.

USDA collects market news information and production statistics. Producers are kept aware of current markets and trends on a regular basis. Frequent outlook and situation reports are published so production and marketing decisions may be constantly evaluated and altered by industry.

Both independent and integrated poultry producers are assisted in all phases of production and marketing by the educational efforts of USDA and the land-grant university system. Cooperative efforts are encouraged through educational programs and financial assistance.

Worldwide Markets

The USDA, through its cooperator programs, takes an active role in exploring the potential and in developing and improving overseas markets for U.S. poultry and egg products.

USDA Agencies Involved in U.S. Poultry and Egg Production and Marketing

Agricultural Cooperative Service (ACS)

The Agricultural Cooperative Service (ACS) helps farmers improve their net incomes and helps local leaders build and develop a better rural America. It does research that cooperatives and others draw on to improve effectiveness of these farmer-owned businesses, provides technical assistance to cooperative management on specific problems of organization and operation, and issues general informational material for cooperative leaders and the public.

Agricultural Marketing Service (AMS)

The Agricultural Marketing Service (AMS) provides services and regulatory programs to help make the marketing of farm and food products orderly and efficient. Activities in the poultry and egg field include the issuance of nationally uniform standards of quality which form the language for trade across the country. In cooperation with State governments, AMS provides voluntary grading services to apply the quality standards and market news services to make the latest information on prices, supplies, demand, and movement of farm and food products quickly available across the Nation. Through continuous inspection of all egg breaking plants and periodic surveillance of shell egg handlers, AMS protects the wholesomeness of the Nation's egg supply. To help stabilize prices, products are purchased by the USDA and distributed mainly for use in school lunches. Purchase specifications are approved and a product acceptance service is available. The AMS also monitors a research and promotion program, with emphasis on shell eggs.

Agricultural Research Service (ARS)

The Agricultural Research Service (ARS) is USDA's chief biological research agency. Efforts are closely allied to the needs of agriculture and to the needs of all Americans: efficient food and fiber production, marketing and utilization, human nutrition, food safety, and environmental protection. Research is conducted in cooperation with States, other USDA agencies, industry, foundations, private groups, and other Federal departments.

Animal and Plant Health Inspection Service (APHIS)

The U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS) monitors imports to prevent the introduction of poultry diseases into the United States and to eradicate diseases if they occur. Hatching eggs, chicks, pet birds, and exotic fowl may be imported only under strict rules of quarantine and examination.

Control and eradication programs are conducted in cooperation with the States and with private industry.

Diagnostic services are provided to help poultry producers control poultry diseases. Programs also are conducted to prevent the production, importation, and marketing of worthless, contaminated, dangerous, or harmful virus, serum, toxin, or other products used in the treatment of poultry.

If foreign poultry diseases penetrate our border defenses, five regional emergency animal disease eradication teams can be activated on short notice.

Another weapon in the fight against poultry disease has been the National Poultry Improvement Plan, a voluntary State-Federal-industry program for the control of certain hatchery-disseminated diseases.

Approximately 90 percent of the country's poultry breeding flocks participate in this program.

Cooperative State Research Service (CSRS)

The Cooperative State Research Service (CSRS) administers Federal grant funds for research in agriculture, agricultural marketing and rural life, and for cooperative forestry research and research facilities. CSRS also administers a specific grant program for basic scientific research.

Economic Research Service (ERS)

The Economic Research Service (ERS) conducts programs of research regarding economics of agricultural policy, development, production, and marketing. Emphasis is given to both domestic and foreign commerce. Research programs are directed along commodity lines, functional lines, and geographical areas. The results of studies are widely disseminated, and current information is provided to the public through a series of outlook reports and conferences.

Extension Service (ES)

The Extension Service (ES) is the education agency of the U.S. Department of Agriculture. It is one of three partners in the educational channel with the Cooperative Extension Service and State land-grant universities—and county governments. Extension helps the public learn about and apply to everyday activities the latest technology developed through research by the land-grant universities, the USDA, and other sources. Major areas of assistance are agricultural production, marketing, natural resources, home economics and nutrition, 4-H youth development, rural development, and related subjects.

Food Safety and Inspection Service (FSIS)

Poultry and poultry products are increasingly an important source of the Nation's food supply. FSIS assures that poultry products distributed for consumption are wholesome, unadulterated, and properly marked, labeled, and packaged. FSIS enforces requirements for products, equipment, facilities, and inspection procedures. In addition to the bird-by-bird inspection, a monitoring program detects unwanted chemicals in flocks and in individual carcasses. These efforts assure consumers that products purchased in one area of the country are subject to the same inspection techniques and procedures, the same equipment and facilities, and sanitation requirements, and the same product standards as those prepared in any other part of the country.

Foreign Agricultural Service (FAS)

The Foreign Agricultural Service (FAS) represents U.S. agriculture in international affairs and is the export promotion and service agency for U.S. agriculture. It maintains and expands agricultural exports by cooperating with private business on jointly financed market development projects abroad. It improves access to foreign markets for U.S. farm products through representations to foreign governments and through participation in formal trade negotiations. It operates a global reporting and analysis network covering world agricultural production, trade, competition, and policy situations affecting U.S. agriculture. FAS also conducts foreign commodity and competition analysis on worldwide production, trade, marketing, prices, consumption, and other factors affecting U.S. exports and imports of agricultural commodities.

Packers and Stockyards Administration (P&SA)

The USDA's Packers and Stockyards Administration (P&SA) administers the law which prohibits live poultry dealers or handlers from engaging in unfair, unjust, discriminatory, or deceptive practices in the procurement and marketing of poultry or poultry products. Its regulations govern fair business in merchandising and marketing of processed poultry or poultry products, in live production contracts, accounting to farmers, payment practices, and in scales and weighing procedures.

Statistical Reporting Service (SRS)

The Statistical Reporting Service (SRS) administers the U.S. Department of Agriculture's program of collecting, processing, and publishing current national and State agricultural statistics. Reports concern crops, livestock, poultry, dairy, prices, labor, stocks, and related agricultural topics. SRS is also responsible for the evaluation and improvement of the USDA's statistical practices.

